

ABSTRACT OF THE DISCLOSURE

A short arc lamp is optimized for improved thermal performance characteristics.

The short arc lamp includes a ceramic body having a concave reflective surface formed in an upper end thereof, a base adapted to receive the base end of the ceramic body in abutting relation, and a window frame assembly positioned in abutting concentric relation with the upper end of the ceramic body. In particular, the ceramic body is formed from beryllia (beryllium oxide) which has superior thermal transfer characteristics. The lamp is further provided with a specialized coating which help keep infra-red (IR) light energy from escaping from the lamp. In one instance, the coating is an IR reflective coating placed on the window of the lamp to reflect IR light energy back into the lamp where it can be conducted outwardly through the beryllium oxide body and base. In another instance, the reflector surface of the beryllium oxide body is provided with a dichroic coating which reflects visible light, while allowing IR energy to pass through. Accordingly, the IR energy passes through to the ceramic body and is transferred outwardly through the base.